

REMARKS

Claims 1-7 have been rejected under 35 USC 102(b) as anticipated by Liebmann (U.S. Patent No. 5,553,274). The rejection is respectfully traversed.

The present invention relates to a method for detection and avoidance of etch-critical areas in the production of a layout. To detect etch-critical areas in the layout independently of the rules of production technology, process-controlled critical areas are determined and automatically removed in the existing layout, such that undercuts are avoided in the ensuing etching procedures. This prevents larger particles in critical areas from being dissolved out of the coating to be removed, and prevents them from being deposited in other areas on the printed circuit board to be produced. The deposits can, for example, lead to serious defects in printed circuit board production. The critical areas tend to form in cases of narrow placement of strip conductors or when strip conductor elements are closely adjacent to one another.

Liebmann discloses an optical proximity correction (OPC) routine that enhances the fidelity of VLSI pattern transfer operations such as photolithography and receive ion etch (RIE) by predistorting the mask while biasing only critical features and eliminating. In particular, Liebmann uses an algorithm for chip design in which the structure is divided into geometric forms, especially rectangular tracks, in various layers and in the respective layer. The steps themselves are detailed in col. 4, lines 34-62. However, none of these steps provide the removal of etch-critical areas, as required by the claimed invention (see, for example, claim 1). Moreover, in the claimed invention, the circuit assembly is not divided into strip conductors progressing toward one another at primarily right angles. In fact, the claimed invention is an operative switch circuit assembly whose strip conductors run on corresponding base objects. To avoid etch-critical areas, as explained above, this assembly is examined for critical areas, which areas are modified as a function of the coating, which are to be removed by etching, of the space to be maintained, such that no larger elements of the coating of the base object can be dissolved in, for example, a caustic bath.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to

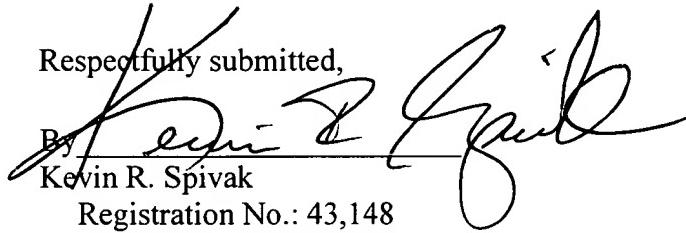
withdraw the outstanding rejection of the claims and to pass this application to issue. If it is determined that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number given below.

In the event the U.S. Patent and Trademark office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 03-1952 referencing docket no. 449122030700. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

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Respectfully submitted,

By


Kevin R. Spivak

Registration No.: 43,148
MORRISON & FOERSTER LLP
1650 Tysons Blvd, Suite 300
McLean, Virginia 22102
(703) 760-7762 - Telephone
(703) 760-7777 - Facsimile